

Please amend the subject application as follows.

In the claims:

Please cancel clams 29-32 without disclaimer or prejudice to applicants' right to pursue the subject matter of these claims in a future continuation or divisional application.

Please amend claims 1, 7, 10, 11, 17-21, 27, and 28 as follows:

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--1. (Amended) A method for detecting a molecule in contact with an interface, which comprises:

(a) contacting an interface with a molecule which comprises a second harmonic-active label attached to the molecule; and

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(b) detecting light emitted from the interface using a surface selective technique so as to detect the second harmonic-active labeled molecule in contact with the interface, wherein the molecule is not detectable in contact with the interface using the surface selective technique in the absence of the second harmonic-active label.--

A2
--7. (Amended) The method of claim 1, wherein the second harmonic-active label is bound to the molecule by a specific interaction or a non-specific interaction.--

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--10. (Amended) The method of claim 1, wherein the second harmonic-active label is specific for an amine group

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or a sulfhydryl group on the molecule.--

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--11. (Amended) The method of claim 1, wherein the second harmonic-active label comprises a plurality of individual second harmonic-active moieties which each have a nonlinear susceptibility and are bound together in a fixed and determinate orientation with respect to each other so as to increase the overall nonlinear susceptibility of the second harmonic-active label.--

--17. (Amended) The method of claim 1, wherein the molecule is a protein and the interface is at a receptor on a membrane.--

--18. (Amended) The method of claim 1, wherein the molecule is on a viral surface and the interface is at a cell surface.--

--19. (Amended) The method of claim 1, wherein the molecule is a protein and the interface is at a protein.--

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--20. (Amended) The method of claim 1, wherein the molecule is on a cell and the interface is at a cell surface.--

--21. (Amended) A method for detecting a molecule in a medium, which comprises:

(a) labeling a surface with a molecule which comprises a second harmonic-active label attached to the molecule, wherein the second harmonic-

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active label specifically interacts with a second molecule to be detected, and wherein the second harmonic-active labeled molecule is not detectable at the surface using the surface selective technique in the absence of the second harmonic-active label,

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- (b) contacting the surface with a medium comprising the second molecule, thereby creating an interface at the surface,
 - (c) detecting the second harmonic-active labeled molecule at the interface by measuring a signal generated using a surface selective technique, and
 - (d) detecting a change in the signal when the second molecule interacts with the second harmonic-active labeled molecule, thereby detecting the second molecule in the medium.--

--27. (Amended) The method of claim 21, wherein the interaction between the second harmonic-active labeled molecule and the molecule to be detected is an antibody-antigen interaction.--

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--28. (Amended) The method of claim 21, wherein the medium contains an amount of the molecule to be detected, the change in the signal when the molecule interacts with the second harmonic-active labeled molecule is a quantitative change, and the amount of the molecule in the medium can be determined from the change in the signal.--

Please add new claims 33-37 as follows:

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- 33. (New) The method of claim 21, wherein the molecule to be detected is labeled with a second harmonic-active label.--
- 34. (New) A method for detecting an interaction between a first labeled molecule and a second molecule which comprises:
- (a) contacting a first labeled molecule at an interface with a medium comprising a second molecule, wherein said first labeled molecule comprises a second harmonic-active label attached to the molecule, wherein the second harmonic-active label specifically interacts with the second molecule, and wherein the first molecule is not detectable at the interface using a surface selective technique in the absence of the second harmonic-active label; and
- (b) detecting an interaction of said second molecule with said first labeled molecule at said interface by measuring a signal generated using a surface selective technique.--
- 35. (New) The method of claim 34, wherein said second molecule is labeled with a second harmonic-active label.--
- 36. (New) The method of claim 21, wherein the molecule is selected from the group consisting of a lipid, carbohydrate, protein and nucleic acid.--
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